

**Work Order ID 56290**

February 17, 2010 2:24:56 PM



Page 1

Item ID: D2052

Accept



Setup Start



Revision ID:

Stop



Item Name: Mounting Bracket

Start Date: 2/17/10 Start Qty: 20.00



Cust Item ID:

Required Date: 2/24/10 Req'd Qty: 20.00



Customer:

Reference:

Approvals: Process Plan: *RL*Date: *10-2-17*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D2052

Rev D

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D2052

Dwg Rev: *D*Prog Rev: *D*

\*\*\*\*grain direction along 3.878" \*\*\*\*

2-Deburr if necessary

*10-2-24**(24)*

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

*10-2-24*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 56290

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Cust Item ID:

Required Date: 2/24/10 Req'd Qty: 20.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC8- Inspect parts - second check

0.00



QC

Quality Control

Memo

0.00

*8/10/12*

*8/10/12/25*

*counter*  
*(X23)*

*Pto ->*

130

NC BRAKE

0.00



Brake NC

Brake NC

Memo

Form as per Dwg D2052 using CNC Brake

0.00

*8/10/13/11*

*23*

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Quality Control

Memo

0.00

*8/10/13/11*

*counter*  
*(X23)*



# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/02/25	#120	Took Qty + 1 Part For inspection template	S	10/02/25	+1		S 10/02/25

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 56290**

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Item ID: D2052

Revision ID:

Item Name: Mounting Bracket

Start Date: 2/17/10 Start Qty: 20.00

Required Date: 2/24/10 Req'd Qty: 20.00

Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150



HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

Memo

0.00

BR

10-3-15

(23)

160



Powdercoat

Powder Coating

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

0.00

Memo

0.00

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

11:00  
320°  
11:30

BR 10-3-15

(23)

170



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

Rec'd 3/16 (23)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



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Item ID: D2052

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Revision ID:

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Start Date: 2/17/10

Start Qty: 20.00

Required Date: 2/24/10

Req'd Qty: 20.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

Identify as per dwg & Stock Location: 8

0.00



Packaging

Memo

0.00

Packaging

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

Rec'd 3/16 (23)

10/03/17 JG  
MF  
10-3-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries



# Picklist Print

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Page 1

Work Order ID: 56290



Parent Item: D2052



Parent Item Name: Mounting Bracket

Comments: IPP C01.08.21 Added Finishing SM (Issue this IPP with part number D2053)

IPP Rev:D now water jet 07-10-25 DD

IPP Rev:E 08-05-14 chg to revD as per ECN1171 DD verified by:EC

Start Date: 2/17/10

Required Date: 2/24/10

Start Qty: 20.00

Required Qty: 20.00

M5052H32S.090

Purchased

No

100

sf

61.3000

2.7158



3.5

5052-H32 .090 Sheet



18 10-2-24

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

MAT

61.3

100782

29.3

3019

32

24

100782

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

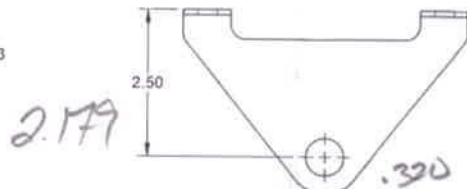
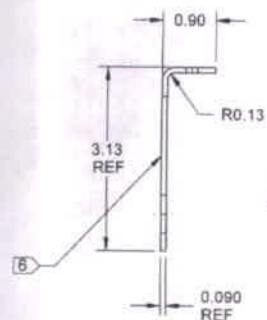
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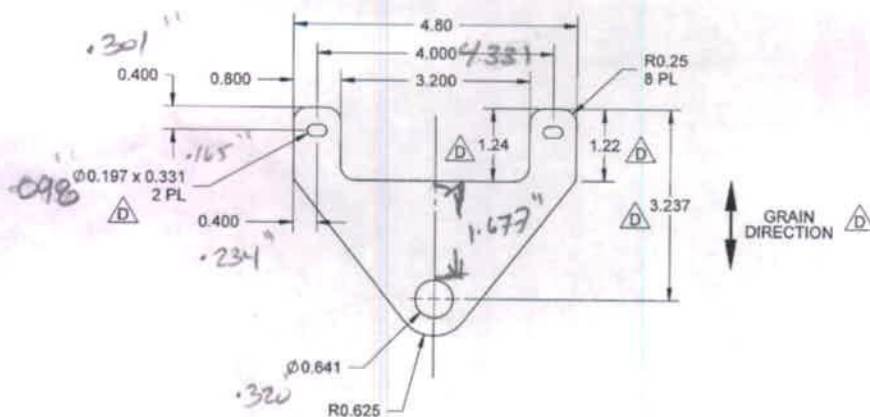








**D2052 BRACKET**



**D2052F FLAT PATTERN**

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

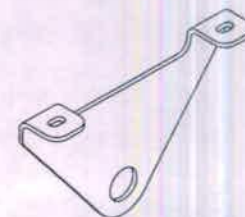
SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 56290

B-10-2-17



RELEASED  
88-05-13/14

**NOTES:**

- 1) MATERIAL: 5052-H32 ALUMINUM SHEET 0.090 THICK PER QQ-A-250/8 OR AMS 4016 (REF DART SPEC M5052H32S.090) OR 6061-T6 (OR-T62) ALUMINUM SHEET 0.090 THICK PER QQ-A-250/11 OR AMS 4025/4027 (REF DART SPEC M6061T6S.090)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT BLACK SANDING (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2052" USING FINE POINT PERMANENT INK MARKER OR LABEL AFTER FINISH
- 7) WEIGHT: 0.08 lbs

D	WIDEN SLOT (ZN B7-1); UPDATE FLAT PATTERN DIMENSIONS (ZN B5-1, B6-1); ADD 6061-T6 OPTION (ZN A5-1); ADD CHEMICAL CONVERSION COAT AND CHANGE TO BLACK SANDING (ZN A6-1); ADD IDENTIFICATION (ZN A4-1); ADD WEIGHT (ZN A5-1); ADD GRAIN DIRECTION (ZN B4-1); REASON: PRODUCT IMPROVEMENT (REF PAR 08-012)	PH	08.04.28
C	ADD FLAT PATTERN	RF	99.04.30
B	ADD SLOT TO FOOT	BW	97.02.21
A	NEW ISSUE	BW	92.01.12
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	JP		
CHECKED	JP	DRAWING NO.	REV. D
MFG. APPR.	JP	D2052	SHEET 1 OF 1
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	BRACKET	NTS
DATE	08.04.28	COPYRIGHT © 1992 BY DART AEROSPACE LTD THIS DOCUMENT IS RELEASED FOR COMPETITIVE AND IS SUBJECT TO THE SUPPLEMENTARY CONDITIONS THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMMUNITIES TO ANY OTHER PERSON OR ENTITY WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

